WHAT IS CLAIMED IS:

1   1.   A method for processing a source document in a structured document format

2   including elements providing source content to render, wherein the source content comprises

3   code that is rasterized into output, comprising:

4   receiving the source document;

5   receiving a layout data structure providing formatting properties specifying a layout and

6   format of the content output;

7   processing the source document and the layout data structure to determine formatting

8   properties, including page divisions, for the content in the source document;

9   generating multiple page objects, wherein each page object includes source content and

10   formatting properties for one page; and

11   transmitting the page objects to a rasterizer to transform into renderable information

12   capable of being generated by an output device.

1   2.   The method of claim 1, wherein the source document includes statements in a

2   first presentation language, further comprising:

3   transforming the source document and source content therein into a result document in a

4   second presentation language, wherein the result document includes the source content and the

5   formatting properties provided by the layout data structure, wherein the formatting properties

6   indicate page divisions of the content, and wherein the multiple page objects are generated from

7   the result document.

1   3.   The method of claim 2, wherein the layout data structure comprises a separate

2   document from the source document.

1   4.   The method of claim 2, wherein the first presentation language comprises the

2   Extensible Markup Language (XML) and wherein the second presentation language comprises

3   Extensible Stylesheet Language Formatting Objects (XSL-FO), and wherein the page layout

4   data structure comprises an XSL stylesheet.

1   5.   The method of claim 2, wherein the page objects include formatting properties

2   in a third presentation language.

1   6.   The method of claim 5, wherein the first presentation language comprises the

2   Extensible Markup Language (XML), wherein the second presentation language comprises

3   Extensible Stylesheet Language Formatting Objects (XSL-FO), wherein the third presentation

4   language comprises the Mixed Object Document Content Architecture (MO:DCA), and

5   wherein the layout data structure comprises an XSL stylesheet.

1   7.   The method of claim 5, wherein the third presentation language comprises a

2   page description language.

1   8.   The method of claim 2, wherein the page objects include content and formatting

2   properties in the second presentation language.

1   9.   The method of claim 2, wherein the second presentation language comprises

2   Extensible Stylesheet Language Formatting Objects (XSL-FO).

1   10.   The method of claim 1, wherein the page objects include content and formatting

2   properties in a device independent presentation language.

1   11.   The method of claim 1, wherein the source content is in a page description

2 language.

1   12.   The method of claim 1, wherein the source document and page objects include

2 the formatting properties in a same presentation language.

1   13.   The method of claim 1, wherein the page object includes content and formatting

2 properties for one page.

1   14.   The method of claim 1, wherein the source document does not indicate page

2 divisions for the content.

1   15.   A system for processing a source document in a structured document format

2 including elements providing source content to render, wherein the source content comprises

3 code that is rasterized into output, comprising:

4   means for receiving the source document;

5   means for receiving a layout data structure providing formatting properties specifying a

6 layout and format of the content output;

7   means for processing the source document and the layout data structure to determine

8 formatting properties, including page divisions, for the content in the source document;

9   means for generating multiple page objects, wherein each page object includes source

10 content and formatting properties for one page; and

11   means for transmitting the page objects to a rasterizer to transform into renderable

12 information capable of being generated by an output device.

1   16.   The system of claim 15, wherein the source document includes statements in a

2 first presentation language, further comprising:

3   means for transforming the source document and source content therein into a result

4 document in a second presentation language, wherein the result document includes the source

5 content and the formatting properties provided by the layout data structure, wherein the

6 formatting properties indicate page divisions of the content, and wherein the multiple page

7 objects are generated from the result document.

1   17.   The system of claim 16, wherein the layout data structure comprises a separate

2 document from the source document.

1   18.   The system of claim 15, wherein the first presentation language comprises the

2 Extensible Markup Language (XML) and wherein the second presentation language comprises

3 Extensible Stylesheet Language Formatting Objects (XSL-FO), and wherein the page layout

4 data structure comprises an XSL stylesheet.

1   19.   The system of claim 15, wherein the page objects include formatting properties

2 in a third presentation language.

1   20.   The system of claim 19, wherein the first presentation language comprises the

2 Extensible Markup Language (XML), wherein the second presentation language comprises

3 Extensible Stylesheet Language Formatting Objects (XSL-FO), wherein the third presentation

4 language comprises the Mixed Object Document Content Architecture (MO:DCA), and

5 wherein the layout data structure comprises an XSL stylesheet.

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1   21.   The system of claim 19, wherein the third presentation language comprises a

2   page description language.

1   22.   The system of claim 16, wherein the page objects include content and

2   formatting properties in the second presentation language.

1   23.   The system of claim 16, wherein the second presentation language comprises

2   Extensible Stylesheet Language Formatting Objects (XSL-FO).

1   24 25.   The system of claim 15, wherein the page objects include content and

2   formatting properties in a device independent presentation language.

1   25 26.   The system of claim 15, wherein the source content is in a page description

2   language.

1   26 27.   The system of claim 15, wherein the source document and page objects include

2   the formatting properties in a same presentation language.

1   27 28.   The system of claim 15, wherein the page object includes content and

2   formatting properties for one page.

1   28 29.   The system of claim 15, wherein the source document does not indicate page

2   divisions for the content.

1   29 30.   An article of manufacture for processing a source document in a structured

2   document format including elements providing source content to render, wherein the source

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3 content comprises code that is rasterized into output, and wherein the article of manufacture

4 comprises code capable of causing a processor to perform:

5   receiving the source document;

6   receiving a layout data structure providing formatting properties specifying a layout and

7 format of the content output;

8   processing the source document and the layout data structure to determine formatting

9 properties, including page divisions, for the content in the source document;

10   generating multiple page objects, wherein each page object includes source content and

11 formatting properties for one page; and

12   transmitting the page objects to a rasterizer to transform into renderable information

13 capable of being generated by an output device.

1 31. The article of manufacture of claim 30, wherein the source document includes

2 statements in a first presentation language, and wherein the code is further capable of causing

3 the processor to perform:

4   transforming the source document and source content therein into a result document in a

5 second presentation language, wherein the result document includes the source content and the

6 formatting properties provided by the layout data structure, wherein the formatting properties

7 indicate page divisions of the content, and wherein the multiple page objects are generated from

8 the result document.

1 32. The article of manufacture of claim 31, wherein the layout data structure

2 comprises a separate document from the source document.

1 33. The article of manufacture of 31, wherein the first presentation language

2 comprises the Extensible Markup Language (XML) and wherein the second presentation

3   language comprises Extensible Stylesheet Language Formatting Objects (XSL-FO), and

4   wherein the page layout data structure comprises an XSL stylesheet.

1   34.   The article of manufacture of 31, wherein the page objects include formatting

2   properties in a third presentation language.

1   35.   The article of manufacture of 34, wherein the first presentation language

2   comprises the Extensible Markup Language (XML), wherein the second presentation language

3   comprises Extensible Stylesheet Language Formatting Objects (XSL-FO), wherein the third

4   presentation language comprises the Mixed Object Document Content Architecture

5   (MO:DCA), and wherein the layout data structure comprises an XSL stylesheet.

1   36.   The article of manufacture of claim 34, wherein the third presentation language

2   comprises a page description language.

1   37.   The article of manufacture of claim 31, wherein the page objects include

2   content and formatting properties in the second presentation language.

1   38.   The article of manufacture of claim 31, wherein the second presentation

2   language comprises Extensible Stylesheet Language Formatting Objects (XSL-FO).

1   39.   The article of manufacture of claim 31, wherein the page objects include

2   content and formatting properties in a device independent presentation language.

1   40.   The article of manufacture of claim 30, wherein the source content is in a page

2   description language.

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1   41.   The article of manufacture of claim 30, wherein the source document and page

2   objects include the formatting properties in a same presentation language.

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1   42.   The article of manufacture of claim 30, wherein the page object includes

2   content and formatting properties for one page.

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1   43.   The article of manufacture of claim 30, wherein the source document does not

indicate page divisions for the content.